# FAA PROJECT # 3-20-0088-49

# CHANGE ORDER

No. \_2\_.

Dated 11 July 2006 .

Owner's Project No. FAA AIP No. 3-20-0088-49 City of Wich	ita Nos. 453-348 (Taxiway L) and 453-354 (Taxiway H)
Project: Construction of Taxiways L, L-1, Compass Pad	& Apron and Extension of Taxiways H & H-1
Owner: The Wichita Airport Authority	
Contractor Cornejo & Sons, Inc.	Contract Date <u>09 August 2005</u>
placement of topsoil: Paving work that includes construction of drainage layer; and portland cement concrete pavement and fibe of taxiway edge lights and taxiway guidance signs, and remove sewer, inlet and manhole construction, and construction of pay	ment of subgrade material within the project limits, preparation and on the plans, area grading outside the neat lines of pavement and plant mix bituminous pavements for haul roads; bituminous treated or reinforced concrete pavement; Seeding and sodding; Installation yal and replacement of taxiway edge lights; Miscellaneous storm temporary and permanent chain or the Construction of Taxiways L, L-1, Compass Pad & Apron and port
To: Cornejo & Sons, Inc.	, Contractor
You are directed to make the changes noted below in the subject	contract:
By Direction of the Wichita	Airport Authority
Carlos Mayans, Pres	Date:ident
Nature of Change:	
caoles. Included is the work to expand the 4-way 2" to a	ssure of the required minimum separation from the FAA Control 6-way 4" duct bank at Taxiway L Sta. 32+50.
[2] Switch from waterborne to solvent base pavement marking p	paint for the PCC pavement markings.
[3] Reroute S3 circuit on the east side of Runway 19R.	
differential between the concrete structure and the new P(	provide drainage by installing a dry well and minimize the grade CC pavement for Taxiway L(East).
panel (114, 514, 1141, 5141) to the V-EP3a panel with the ne	s, consolidate the 20A/1P digitrac breakers currently in the V-EP3 ew 20A/1P digitrac breakers (TL & SL).
[6] Remove RW 1L Glide Slope Road to comply with the Ri roads from active runways.	unway Safety Action Team recommendations to eliminate access
[7] Remove RW 32 REIL FTP Road to comply with the Runwa	ay Safety Action Team recommendations to eliminate access roads

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[11] Change the L-861T L.E.D. type elevated taxiway edge light fixture warranty from 10 years to 5 years to match the

[9] Eradicate the existing markings and apply new pavement markings for the Runway 19R and Runway 1L Threshold Bars.

from active runways and due to the existing equipment being relocated.

[10] A \$0.66 correction on Change Order No. 1.

manufacturers warranty.

[8] Over excavation of the rock base at Taxiway J Sta. 206+89 to Sta. 210+88 11' Lt. to 47' Lt.

# **FAA PROJECT # 3-20-0088-49**

The changes result in the following adjustment of Contract Price and Contract Time:

		Aggregate		Taxiway L		Taxiway H	
3-20-0088-49 Contract Price Prior to This Change Order	\$	5,459,303,19	\$	4,947,105.45	ø	610 100 04	
Non-FAA Participating Contract Price Prior to This Change Order	\$	547,860,80	\$ \$	466,586.80	\$ \$	512,197.74 81,274.00	
Total Contract Price Prior to This Change Order	\$	6,007,163.99	\$_	5,413,692.25	\$	593,471.74	
3-20-0088-49 Net Increase Resulting from This Change Order	\$.	27,671.72	\$	<u>27,671.72</u>	<b>e</b>	0.00	
Non-FAA Participating Net Increase Resulting from This Change Order	\$	459.00	\$	459.00	\$ \$	0.00 0.00	
Total Net Increase Resulting from This Change Order	\$	28,130.72	\$	28,130.72	\$	0.00	
Current 3-20-0088-49 Contract Price Including This Change Order	•	5,486,974.91	\$	4.074.777.17	Φ	510 10m - 1	
Current Non-FAA Participating Contract Price Including This Change Order	\$	548,319.80	\$	4,974,777,17	\$	512,197.74	
Current Total Contract Price Including This Change Order	\$	6,035,294 <u>.71</u>	\$	467,045.80 5,441,822.97	\$ \$	81,274.00 593,471.74	
Phase I Contract Time Prior to This Change Order		***					
Phase I Net Increase Resulting From This Change Order		112		endar Days			
Phase I Current Contract Time Including This Change Order		endar Days endar Days					
·		112		cildai Days			
Phase II Contract Time Prior to This Change Order		227	_ Cal	endar Days			
Phase II Net Increase Resulting From This Change Order		00	_ Cal	endar Days			
Phase II Current Contract Time Including This Change Order		227	_ Cal	endar Days			
Flight Check Contract Time Prior to This Change Order		76	Cal	ander Davis			
Flight Check Net Increase Resulting From This Change Order		00		endar Days endar Days			
Flight Check Current Contract Time Including This Change Order							
		76	_ 041	endar Days			
Runway 14 Closure Contract Time Prior to This Change Order		60	Cal	endar Days			
Runway 14 Closure Net Increase Resulting From This Change Order	00 Calendar Days						
Runway 14 Closure Current Contract Time Including This Change Order							
Runway IR Sod Closure Contract Time Prior to This Change Order		. 3	Cal	endar Days			
Runway IR Sod Closure Net Increase Resulting From This Change Order		. 0		endar Days			
Runway 1R Sod Closure Current Contract Time Including This Change Order		3		endar Days			
Permanent Seeding Contract Time Prior to This Change Order		21	Cal	andon Dono			
Permanent Seeding Net Increase Resulting From This Change Order		00		endar Days endar Days			
Permanent Seeding Current Contract Time Including This Change Order		21		endar Days			
				onaa Days			
The Above Changes Are Approved:	Dunfani			1		=	
The 10000 Changes Are Approved.	Professio	onal Engineeri	ng C	onsultants, P.	<u>A.</u>		
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	Ву:				C.	مبر	
	Date:	12 Jacq	70	10 F			
The Above Changes Are Accepted:		Cornejo	& Sc	ons. Inc.		<b>=</b>	
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	By:	Mules	jn		<del></del>		

### FAA PROJECT # 3-20-0088-49

The following Change Order is a modification to the Project Plans and Specifications. The Change Order was prepared at the request of the Owner and was necessary for the following changes:

[ITEM 1] Reroute the FAA PAPI power conductors and the FAA REIL power conductors to assure the required minimum separation between the new control cables and the power cables. The changes are as follows:

- A) Route the PAPI power conductors through HH-3 and HH-4 instead of HH-9 and HH-10. (HH-3 and HH-4 are now located at Sta. 5+80 and HH-9 and HH-10 are located at Sta. 5+72).
- B) Route the REIL power conductors through HH-1 and HH-2 instead of HH-13 and HH-14.
- C) The duct bank between HH-1 and HH-2 shall be up-sized from a 4-way 2" duct bank to a 6-way 4" duct bank.
- D) The FAA power conductors and WAA conductors shall be installed in the same duct.
- E) To provide the proper cover for the FAA cables, new 2" diameter sleeves shall be installed in the existing handholes HH-1, HH-2, HH-3, and HH-4 at the bottom (48" depth) where the direct buried cable enters the structure. Additional sleeves will also be necessary on structures HH-1 and HH-2 on the duct bank side to provide the 6-way raceway.
- F) Maintain 24" of clearance anywhere the power cables cross the communications cables.

The change in contract quantity for the existing bid items is as follows:

)	ITEM	QTY	UNIT		COST	,	EX"	TENSION
79	2" Conduit 4-way Duct Bank	-123	LF	@	\$ 27.00	=	\$ (	(3,321.00)
80	4" Conduit 6-way Duct Bank	123	LF	@	\$ 45.00	=		5,535.00
84	Duct, Conduit, Cable, & Splice Marker	2	EA	@	\$100.00	=	\$	200.00
GRAN	T NO. 3-20-0088-49 TOTALS						\$	2,414.00
I	TEM	QTY	UNIT		COST	J	EXT	TENSION
73	FAA #8 2/C 5KV Armored Power Cable	53	LF	@	\$5.00	=	\$	265.00
76	Raceway Trench & B/F (48" Depth)	2.8	LF	@	\$4.50	=	\$	126.00
77	Raceway Trench & B/F (60" Depth)	16	LF	@	\$4.25	_	\$	68.00
FAA 1	NON-PARTICIPATING TOTALS						\$	459.00
TOTAL	S FROM EXISTING BID ITEMS:						\$	2,873.00

There is not a basis of payment provided for the work to install the sleeves in HH-1 and HH-2 (3 each) and HH-3 and HH-4 (1 each) or the additional exothermic welding for the counterpoise system.

A new item is created as a part of the change order to accommodate the change as a lump sum price.

Bid Item No. £104 Reroute PAPI and REIL Power Cables \$ 1,740.00 lump sum

Total cost including the increase of existing bid items and new bid item: \$4,613.00

# FAA PROJECT # 3-20-0088-49

[ITEM 2] Apply solvent base paint instead of waterborne paint for the pavement markings on PCC pavements. The Owner uses solvent based paint exclusively on PCC pavement for maintenance, therefore requested the change to remain with one type of paint.

The change in contract unit price for Item Nos. 56 and 57 is as follows:

ITEM	BID UNIT COST	UNIT COST ADJUSTMENT	UNIT COST NEW
#56 Runway Pavement Painting 1	\$ 0.38	\$0.06	\$ 0.44
#57 Taxiway Pavement Painting 1	\$ 1.48	\$0.06	\$ 1.56
ITEM	COMPUTED AREA	UNIT COST ADJUSTMENT	TOTAL COST NEW
#56 Runway Pavement Painting 1	134,895 SF	@ \$0.06/SF =	\$ 8,093.70
#57 Taxiway Pavement Painting <sup>1</sup> Note: <sup>1</sup> Modified by Change Order No.	6,356 SF	@ \$0.06/SF =	\$ 381.36

GRANT NO. 3-20-0088-49 TOTAL

\$ 8,475.06

## FAA PROJECT # 3-20-0088-49

- [ITEM 3] Reroute the S3 circuit for improved performance in the field and with the Airfield Lighting Control System. The existing circuit was doubled back in some locations without feeding equipment and existing conduits had collapsed. Efforts to trace the underground path of the disorganized circuit resulted in confusion and the additional length of the circuit was considered to be contributing to the communication problems between the logitrac devices for the Hold Signs and the Airfield Lighting Control System.
  - A) The new conduit from HH33 to HH30 shall be routed through the existing handhole (hereafter called HH-33a) north of the Glide Slope Building Service Road (RW Sta. ~276+54 ~108' Lt.) on the west side of the runway. This raceway will contain only the G2,3 circuit south of HH33a. The existing route of the S3 circuit actually bypasses HH33 (RW Sta. ~270+05 ~112' Lt.). The S3 circuit shall be intercepted at the HH-33a. The S3 and G2,3 circuits shall both be installed the same conduit installed between HH-33a and HH-30. Both circuits shall be routed per plan from HH30 to the guard lights and signs on TW L(East) and back to HH30 and across Runway 19R between HH30 and HH-31. The S3 circuit will not be installed to Runway Edge Light 3-12, but rather installed together with the G2,3 circuits to HH-32. A new raceway shall be installed between HH32 and the TW D Hold Sign #54. The S3 shall be routed back through HH32 and back through HH31. The G2,3 circuit shall be routed in the existing conduit to Guard Light #17 from HH32. New conduit shall be installed from HH-31 to an existing junction box at RW Sta. 277+00 108' Rt. to the Wind Cone at Runway Sta. 277+00 275' Rt., back to the junction box and on to the existing handhole (hereafter called HH31a) at RW Sta. 276+54 108' Rt. directly across the runway from HH33a. The S3 circuit shall be installed to the Distance to Go Sign #196 [1/9] (RW Sta. ~275+50 120' Rt.) from HH31a in the existing conduit. The existing route of S3 is looped at Runway edge light #R3-06 (RW Sta. ~273+72 ~85' Rt.) Where the existing loop in the runway edge light conduit north will have to be unplugged and the existing cable to DTG #196 will have to be plugged into the home run to the south in the same light. If the existing connector kits are not such that the resulting connection is a plug and receptacle, a new kit will have to be installed. The routing of these cables is such that splices should occur at the signs, the lights, or the handholes.

The change in contract unit price adjustments for this work is as follows:

	ITEM	QTY	UNIT	C	OS'	Т		EXT	ENSION
69	#6 1/C 5KV Cable (In Conduit)	2,111	LF	@	\$	0.50	=	\$	1,055.50
74	Bare Counterpoise (Above Conduit)	901	LF	@	\$	0.40	=	\$	360.40
75	Raceway Trench & Backfill (28")	849	LF	@	\$	1.50	=	\$	1,273.50
78	2" PVC Conduit	849	LF	@	\$	1.80	=	\$	1,528.20
84	Duct / Cable Marker	3	EA	@	\$1	00.00	=	\$	300.00
96	3/4" X 10'-0" Ground Rod	3	EA	@	\$	66.00	=	\$	198.00
	GRANT NO. 3-20-0088-49 Subtota	al						\$	4,715.60

A new item is created as a part of the change order to accommodate the change not covered under existing bid item as a lump sum price.

Bid Item No. E105 Additional Work for S3 Circuit \$ 228.00 lump sum

GRANT NO. 3-20-0088-49 Total \$ 4,943.60

## FAA PROJECT # 3-20-0088-49

- [ITEM 4] Modifications for the Runway 19R Threshold Light Bar to provide drainage by installing a dry well and minimize the grade differential between the concrete structure and the new PCC pavement for Taxiway L(East) between Sta. 99+11 and Sta. 99+25 25' Lt. These modifications were necessary to eliminate a drop-off at the edge of the new pavement at 0.5% slope and the existing light bar matching the existing should slope at ~3%. By cutting the end off the light bar and slightly transitioning the outside edge of the pavement, the drop-off can be eliminated. The proposed modifications consist of the following:
  - A) The concrete structure be full depth saw cut west of the far west existing threshold light, at a point where the same concrete cover remains west of the light base as is currently on the north and south sides.
  - B) The existing concrete around the +2" pvc drain line will need to be chipped out far enough to install a coupling or bell end where it can be extended to a point five feet west of the center of the existing threshold light base at a minimum of -1% grade.
  - C) Care shall be exercised not to disturb the existing conduit for the R3 circuit that reportedly runs underneath the light bar paralleling the edge of the runway in line with the runway edge lights (R3 circuit) or the existing FAA cables.
  - D) There is a ground cable inside the light base and through the conduit to the west that needs to exit the base and shall be cad welded to a 3/4" X 10' ground rod within ten feet of the structure.
  - E) A dry well shall be placed at the end of the new +2" pvc drain consisting of a pit 24" diameter x 10 feet deep, lined bottom and sides with D-711 filter fabric and filled with D-705 Porous Backfill. The filter fabric shall be placed over the top of the porous backfill and covered with a minimum of 12" of soil.

A new item is created as a part of the change order to accommodate the change as a lump sum price.

Bid Item No. E106 Modifications to Runway 19R Threshold Light Bar

\$ 1,788.25 lump sum

- [ITEM 5] Relocate the V-EP3a panel to provide clearance from existing equipment and combine circuit breakers for digitrac devices in the same panel.
  - A) Extend conductors and conduit as necessary.
  - B) Consolidate the 20A/1P digitrac breakers currently in the V-EP3 panel (TN, SN, TM, SM) to the V-EP3a panel with the new 20A/1P digitrac breakers (TL & SL).
  - C) Leave the 15A/3P sump pump breaker in V-EP3.

A new item is created as a part of the change order to accommodate the change as a lump sum price.

Bid Item No. E107 Relocate V-EP3A Panel

\$ 1,804.00 lump sum

## FAA PROJECT # 3-20-0088-49

[ITEM 6] Remove RW 1L Glide Slope Road to comply with the Runway Safety Action Team recommendations to eliminate access roads from active runways.

]	ITEM	QTY	U	NIT	COST		Е	XTE	ENSION
6	Unclassified Excavation		50	CY	@	\$3.30	=	\$	165.00
8	PCC Pavement Removal (5"-10	")	301	SY	@	\$3.00	=	\$	903.00
51	Seeding (Permanent)		16	LB	@	\$10.25	=	\$	164:00
53	Fertilizer		32	LB	@	\$0.25	=	\$	8.00
54	Mulching		8	MSF	@	\$3.40	=	\$	27.20

**GRANT NO. 3-20-0088-49 TOTALS** 

\$ 1,267.20

[ITEM 7] Remove RW 32 REIL FTP Road to comply with the Runway Safety Action Team recommendations to eliminate access roads from active runways and due to the existing equipment being relocated.

	ITEM	QTY	UNIT	COST	E	XTENSION
6	Unclassified Excavation	22	CY	@ \$ 3.30 =	\$	72.60
8	PCC Pavement Removal (5"-10")	132	SY	@ \$ 3.00 =	\$	396.00
51	Seeding (Permanent)	7	LB	@ \$10.25 =	\$	71.75
53	Fertilizer	14	LB	@ \$ 0.25 =	\$	3.50
54	Mulching	4	MSF	@ \$ 3.40 =	\$	13.60

GRANT NO. 3-20-0088-49 TOTALS

\$ 557.45

[ITEM 8] Over excavation for Rock Base at Taxiway J Sta. 206+89 to Sta. 210+88 11' Lt. to 47' Lt. to provide a homogenous subgrade to be lime treated under the new 10" apron pavement.

	ITEM	QTY	UNIT	COST	EXTENSION
6	Unclassified Excavation	355	CY	@ \$ 3.30 =	\$ 1,171.50

GRANT NO. 3-20-0088-49 TOTALS

\$ 1,171.50

### FAA PROJECT # 3-20-0088-49

[ITEM 9] Eradicate the existing markings and apply new pavement markings for the Runway 19R and Runway 1L Threshold Bar. The existing threshold bars were in very poor condition and had a thick buildup of pavement marking paint that was flaking off and creating FOD.

	ITEM	QTY	UNIT	COST	EXTENSION
55	Eradication of Runway Markings 1	3,150	SF	@ \$ 0.72 =	\$ 1,197.00
56	Runway Pavement Painting 1	3,150	SF	@ \$ 0.38 =	\$ 2,268.00
	Note: 1 Modified by Change Order No	. 1			

Note: 1 Modified by Change Order No. 1

GRANT NO. 3-20-0088-49 TOTALS

\$ 3,465.00

[ITEM 10] The computation for Item [5] on Change Order No. 1 correctly show the additional costs of \$15,954.66 for a modification to remove the existing and install new pavement markings for compliance with Advisory Circular 150/5340-1J for January 2008, however only \$15,954.00 was added to the contract. This Change corrects the total dollar amounts for the Grant 3-20-0088-49 with the addition of \$0.66 to the Change Order no. 1 totals.

GRANT NO. 3-20-0088-49 TOTALS

\$ 0.66

[ITEM 11] Change the L-861T L.E.D. type elevated taxiway edge light fixture warranty from 10 years to 5 years to match the manufacturers warranty. There is no cost change to the contract for this item.

TOTAL COST OF CHANGE ORDER NO. 2

\$28,130,72

THERE IS NO CHANGE IN CONTRACT TIME AS A RESULT OF THIS CHANGE ORDER.